

## Using multiple persistent technologies in the Condition/DB of BaBar

*Monday, 13 February 2006 17:00 (20 minutes)*

The data production and analysis system of the BaBar Experiment has evolved through a series of changes from a day when the first data were taken in May 1999. The changes, in particular, have also involved persistent technologies used to store the event data as well as a number of related databases. This talk is about CDB - the distributed Conditions Database of the BaBar Experiment. The current production version of the database was deployed in 2002. One of the principles behind the design of CDB was its ability to deal with multiple persistent technologies to store the data. Originally, CDB was implemented using Objectivity/DB - the commercial OODB. Two new implementations of CDB, based on ROOT I/O and MySQL, are now available. All three are going to coexist and be used in the Experiment for a while, targeting various groups of users. This problem poses rather interesting challenges in managing this hybrid system in a highly distributed environment of the Experiment. The talk will cover key design decisions in a foundation of the database, its flexible API designed to cope with multiple persistent technologies, an information flow (transformation) between different formats of data, and other non-trivial aspects of managing this complex system.

**Primary author:** Mr BABAR COMPUTING GROUP, Igor (LBL)

**Presenter:** Dr SMITH, Douglas (STANFORD LINEAR ACCELERATOR CENTER)

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